

**Department of Civil Engineering  
Indian Institute of Engineering Science and Technology, Shibpur  
Howrah-711 103**

Date: 17 October 2017

**NOTICE INVITING QUOTATION**

**(CE/PL/TRE Lab/ Circulatory Water Bath /Oct 2017/09)**

Sealed tenders are invited by the Civil Engineering Department, Indian Institute of Engineering Science and Technology, Shibpur, Howrah-711103 for the supply of **Refrigerated Circulatory Water Bath** for Transportation Engineering Laboratory, Department of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur.

Sealed Technical and Financial bids are to be kept separately inside a bigger sealed envelope. On the top of that outer envelope the Tender Notice Number and the Agency's name, address, mobile and email are to be clearly mentioned.

Tender Documents containing details of the items and terms and conditions may be downloaded from the institute website and completed bidding documents are to be submitted to the **Head, Department of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur; Howrah-711103 within 30.10.2017 (12:00 noon)**.

The rate should clearly indicate the GST break up.

For details contact:

Dr. T. K.Roy, Assistant Professor & Incharge, Transportation Engineering Laboratory

Enclosed:

**Section- I: General Conditions and Important Instructions for Bidders.**

**Section-II: Specification of the Items**

Head, Civil  
Engineering Department, IEST, Shibpur

## **SECTION-I: General Conditions and Important Instructions for Bidders**

- It is necessary to submit the original tender documents along with technical and price bids to the **Office of the Department of Civil Engineering, Indian Institute of Engineering Science and Technology (IEST), Shibpur; Howrah-711103.**
- Bidders are to abide by the terms and condition and submit this tender document.
- Last date of receipt of tender is **31.10.2017 (12:00 noon)**. Tenders received late will not be accepted under any circumstances. Tenders will be opened on the **same day at 4:00 pm**. In case the Institute remains closed on the said date tenders will be received and opened on next working day at same time. The duly authorized representative of the agency may be present during tender opening.
- The Price Bid should clearly mention the price in Rupees including the following:
  - ✓ Delivery charges up to Department of Civil Engineering, IEST, Shibpur, Howrah, including loading and unloading charges.
  - ✓ All taxes, GST, duties, levies as applicable.
  - ✓ Demonstration of the item as per the satisfaction of the Laboratory Incharge
  - ✓ Erection, Commissioning and testing charges at Transportation Engineering Laboratory, Department of Civil Engineering, IEST, Shibpur
- DGS&D rate contract price will be preferred wherever applicable. The Institute will not issue any C or D form availing for concessional Sales Tax/ VAT. The Institute will issue Customs Duty Exemption Certificate or Excise Duty Exemption Certificate for foreign purchase, if required.
- Warranty of equipment should be not less than 12 months.
- The equipment/goods are to be supplied at the Transportation Engineering Laboratory, Department of Civil Engineering, Indian Institute of Engineering Science and Technology between 11.00 am and 4.00 pm from Monday to Friday except holidays. The bidders will be responsible for any breakage, damage or defect in the equipment detected subsequently.
- Period of delivery of equipment/ execution of work should be within two week from the date of issue of Purchase Order. If the supply/execution is not completed within the stipulated period as indicated in the Purchase Order a Liquidated Damage @0.5% per week will be imposed on the value of purchase order subject to maximum of 5% of the value of work order.
- Invoices in triplicate with GST break up should be presented for payment within 7 days of supply/ commissioning of work. No advance is paid for execution of the order. The Order No. is to be noted on both Challan and Invoices. All bills are to be accompanied by order copies and Challan receipt.
- Payment will be made on submission of Proper Bills, Challans etc. by A/C Payee Cheque or bank transfer and no cash payment will be made under any circumstances.
- All payments are subjected to statutory deductions as and when applicable.
- Tender is to be kept valid for acceptance for 3 months with effect from the last date of submission of the tender without any modifications in its terms and conditions.
- Following documents are to be submitted with the tender:
  - ✓ Tender Documents, General Conditions and Important Instruction in original duly signed by the Proprietor/ Partner/ Director of the company.
  - ✓ Latest Income Tax, Sales Tax, Professional Tax clearance certificates and copy of valid Trade License
  - ✓ Bid according to specifications.
  - ✓ Certificates and Literature in support of the item.
  - ✓ GST No. and copy of the relevant documents
  - ✓ A certificate in company's letterhead which is to be signed by the authorized representative stating that all conditions mentioned in the Tender Document have been accepted by the company.
  - ✓ Proof of having ISO certification given by appropriate authorities.
  - ✓ Proof of successful completion of at least two work orders at reputed organizations/Institutions, of similar item during last one year (copies of the purchase/work order will have to be enclosed).
- Authority reserves all rights to accept/reject any/all quotation without showing any reason.

**Head, Civil Engineering Department, IEST, Shibpur**

## SECTION-II: Specification of Items

### 1. Refrigerated Circulatory Water Bath

Body of the apparatus have to be double walled rectangular shaped horizontal deep freezer having tank volume minimum 250 litres. The outer body need to be constructed with thick PCRC, pre-coated corrosion resistant GI sheet duly pre-treated with primers and rust proofing and painted with long lasting stove enamel or elegantly powder coated. The inner construction of the apparatus has to be made up of vapour tight liner with brush stainless steel sheet-304. The 80-mm gap between the walls needs to be filled with high grade polyurethane insulation, which ensures maximum thermal efficiency. The door has to be heavy-duty counterbalanced lid with integrated keyed lock and it also need to have double-seal lid gaskets to minimize frost build up.

Cooling unit of the freezer need to have microprocessor based controller, comprising of PT-100 temperature sensor. The temperature needs to be evenly distributed throughout the chamber through natural water convection mechanism, ensuring very good controllable temperature sensitivity of  $\pm 1.0^{\circ}\text{C}$  having LED/LCD display. The front panel of the bath need to comprise of on/off switches, heating and mains indicator lamps as well as temperature controller. Again, the cooling unit need to comprise of air cooled CFC free compressors of Kirloskar/Tecumseh / Bitzer/ Danfoss make.

- a. Temperature range is ambient to  $-20^{\circ}\text{C}$  with a cool down rate of  $\pm 0.3^{\circ}\text{C}/\text{min}$ .
- b. Power Consumption: nominal 500 - 650 watt, Accessible for repairing, low noise level, Less Vibrations, Voltage Range: 220-230 Volts, 50 Hz, Single Phase, Designed for Extremely High Ambient, Full warranty etc.

It needs to have SEER (Seasonal Energy Efficiency Ratio) to improve the overall efficiency. Alarm system is essentially needed to observe the Power failure or temperature deviation that will trigger audible and visual warning along with adjustable safety alarm with automatic, continuous charge battery backup and digital battery indicator etc. the apparatus also require monitoring system including lifeguard compressor protection to monitor performance and automatically adjust the internal and external conditions. Further, the monitoring system needs to have Voltage Boost Indicator, On-board power monitoring with digital readout of incoming line voltage and Clean Filter indicator. The machine should conform to ASTM E715-80; ASTM F2473-12; ISO 759-1981.